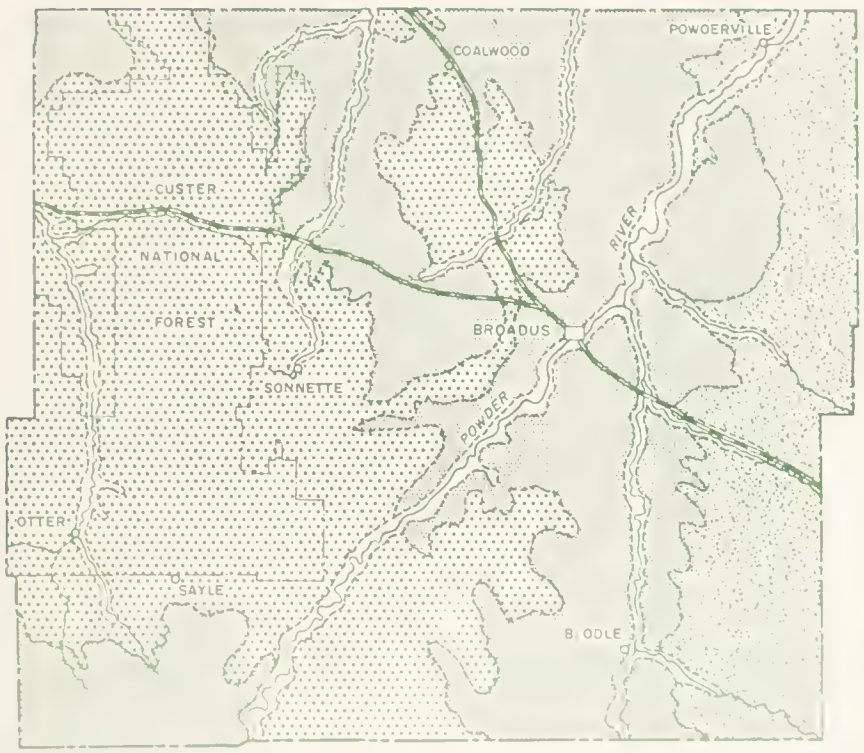
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Conservation Needs
Committee
Our land and
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OUR LAND and WATER

IN POWDER RIVER COUNTY





OUR SOIL



FOUNDATION OF THE NATION

STATE DOCUMENTS COLLECTION

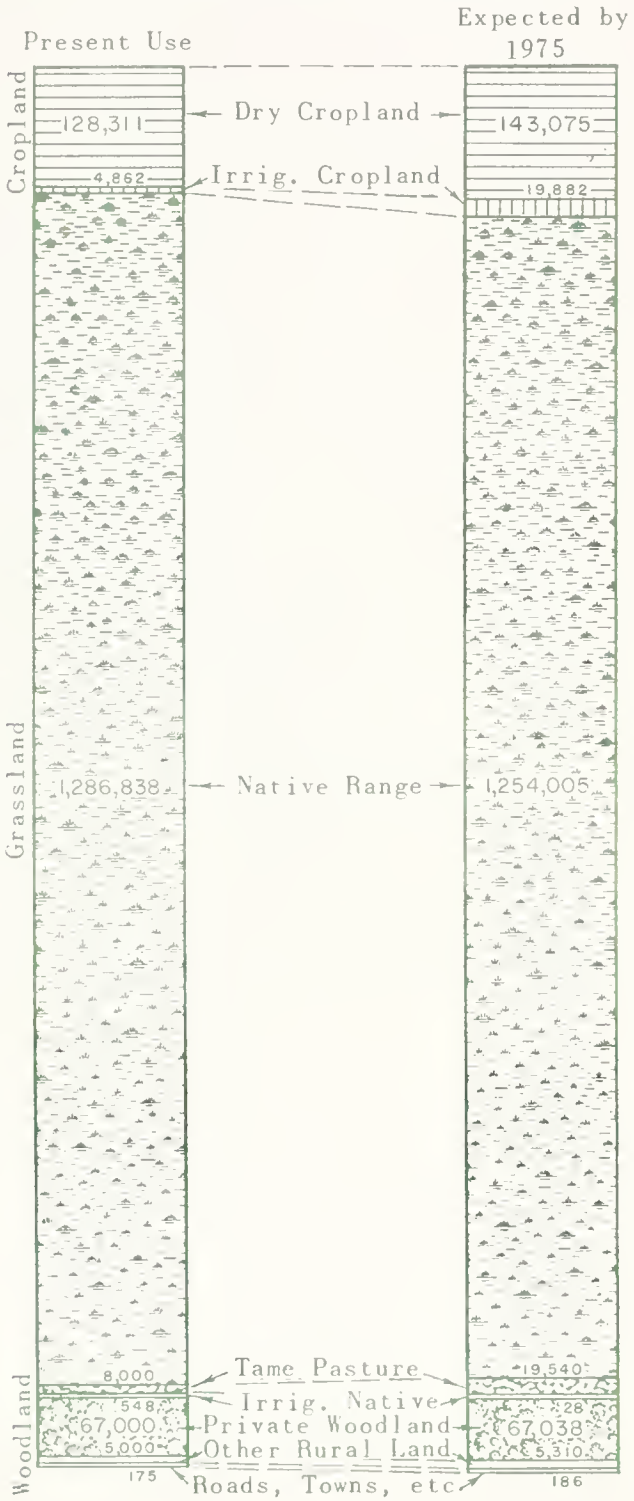
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In Powder River County, there are	2,102,400 Acres
Area of Custer National Forest is	593,927 Acres
Towns, roads, water etc. amount to	5,000 Acres
This leaves a conservation responsibility on	1,503,473 Acres

LAND USE TODAY AND EXPECTED BY 1975



Dry cropland will increase by 14,764. Most of this will be devoted to Alfalfa and other tame hay production. Irrigated cropland will increase by 15,020 acres or almost 400%* on private irrigation developments.

Rangeland will decrease slightly. Some of the better land will be put into crop or hay production or tame pasture.

Tame pasture plantings will increase by 11,500 or approximately 125%. Irrigated native will be decreased considerably. Nearly all of this will be planted to tame pasture.

Very little change expected on private forest land. Land will be taken out of farm and ranches for rural living, highways, or other public use.

*Note: These figures are based on the committee's judgment of a normal expected transition of land use. At the time they were worked up, the Moorehead Dam Project was not being considered very strongly.

LAND USE CHANGE BY CAPABILITIES

LAND CAPABILITY CLASS	LAND USE 195[illegible]	EXPECTED LAND USE CHANGES BY 1975							OUT OF INVENTORY ACREAGE	
		CROPLAND		GRASSLAND		WOODLAND		OTHER		
	Irrigated Cropland	Irrigated	Dry	Range	Tame Pasture	Commercial	Non Commercial		Urban Built-up Areas	Roads
II	190	190								
III	3,812	3,812								
IV	216	216								
VI	25	25								
	Dry Cropland									
II										
III	125,01[illegible]	3,970	118,500		2,500					48
IV	752		729		23					
VI	2,541		2,404		137					
	Range **									
II	16,585	56	3,300	13,229						
III	130,200	9,813	7,363	113,004						20
IV	17,[illegible]84		170	16,399	515					15
VI	1,045,79[illegible]		7,014	1,023,275	13,939				Dams (455)	1,107
VII	76,773			76,427				321	Dams (5)	20
VIII										
	Tame Pasture									
III	3,089	338	2,781							
VI	4,911				4,911					
	Woodland* Commercial									
II	318	130				188				
III	2,093		184			1,909				
VI	19,461					19,461				
VII	28,332					28,332				
	Woodland Non Commercial									
VI	16,750						16,750			
	Other									
II	358							358		
VIII	4,817							4,817		
TOTAL	1,4[illegible],125	18,520	142,445	1,242,20[illegible]	22,02[illegible]	49,830	16,750	5,496		1,470 /1

*Excluding National Forest
**Includes Irrigated Native
/1 460 acres from the road column will include dams

EXPLANATION: Irrigated cropland will increase about 4-1/2 times. Approximately 2,700 acres will be diverted from dryland to tame pasture, most of this is Class III land. There is an indication that there is a need for about as many acres of Class VI cropland that should be seeded to tame pastures. Some Class II and III presently in Native Range will be plowed up for Alfalfa hay production. This shows up as cropland in the chart. All Woodland here is in privately-owned land, and about 5,332 acres are used for grazing. [illegible],[illegible]78 acres will go out of the agricultural acreage inventory and into such use as roads and dams. Approximately [illegible],000 acres of BLM Land will be added to the inventory by conversion to private ownership. This will be a net increase of 4,332 acres in the inventory over a total of 1,500,734 acres private ownership, 528,[illegible]72 acres Custer National Forest, [illegible],[illegible]88 urban and built-up areas, [illegible],[illegible]70 water areas, and a total of 2,[illegible]00 for the county.

TREND IN LAND USE

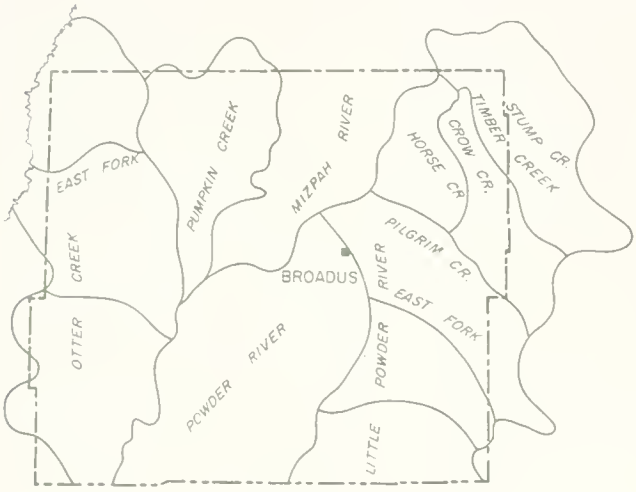


Hayland Development

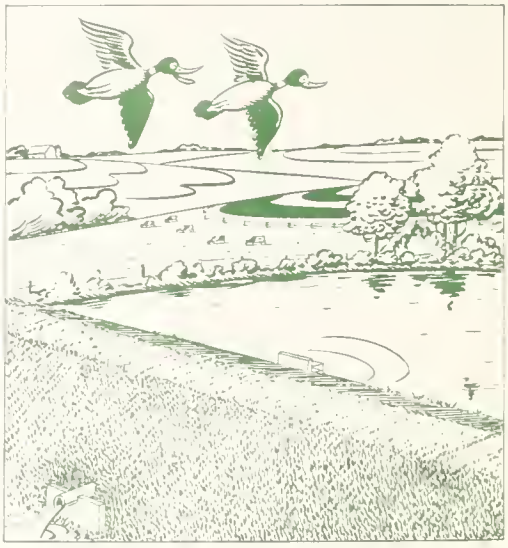


Hayland Development

EXPLANATION: The trend is toward more hayland and tame pasture development. Waterspreading systems to utilize snow runoff and seasonal rains are being constructed for both hay and pasture. Private irrigation systems are being developed by pump installations along the rivers, irrigation dams and a few wells.



POWDER RIVER WATERSHEDS



"DAMMED RIGHT, WATERSHEDS PAY OFF!"

AW 169

WATERSHED INVENTORY

WHAT WAS DONE: Disregarding county lines, the natural drainages were divided into units of 250,000 Acres or less. Each subdivision was studied by the committee to determine treatment needs and possible developments which might be met through the small watershed program or by other kinds of local group action.

WHAT IT REVEALED: Some flood damage has occurred on the Powder River and Otter Creek. Most of this flood damage has been to county roads and some cropland along the flood plain. Sediment damage has caused the most damage on the Powder River and Little Powder by cutting into banks and destroying irrigation pumping sites. There has been some sediment deposits at the mouth of creeks, oftentimes covering hay and cropland. The rough topography causes a lot of sediment in these streams. Good range management could help this problem. Erosion damage is prevalent on all of the drainageways.

The committee felt that there were possibilities of irrigation dam or flood control dam projects on the East Fork of Little Powder River, Mizpah and Otter Creeks. There is excess flooding of spring runoff and then not enough water for irrigation when it is needed most. Drainage is a problem on 1040 acres on Pumpkin and Otter Creeks.



LAND CAPABILITY DEFINITION

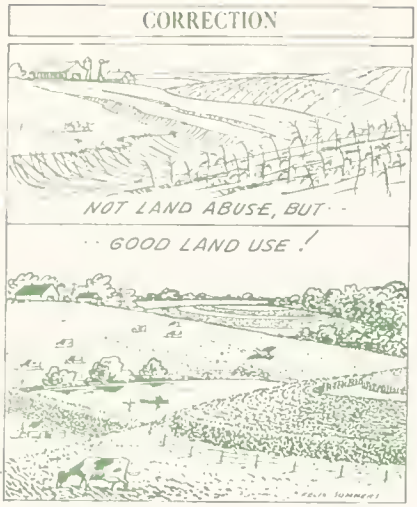
SUITABLE FOR CULTIVATION				NOT SUITABLE FOR CULTIVATION			
Class I	Class II	Class III	Class IV	Class V*	Class VI*	Class VII	Class VIII
Very Good Land No limitations	Good Land Minor Limitations	Moderately good Land with Major Limitations	Fairly Good Land Occasional Cultivation with severe Limitations	Suitable for Pasture, Range and Woodland			Suitable for Wildlife and Watershed
				With no Limitations	With Minor Limitations	With Major Limitations	
Increasing Permanent Limitations →							

Some soils in Classes V and VI can be used for hayland with very intensive management.

WHY THE INVENTORY - Although we are blessed with abundance, our resources are not inexhaustible. They must be cared for and used wisely that their productiveness will continue. To assure their wise use, we need basic facts about physical problems of Conservation, their magnitude and relative urgency. This inventory contains basic facts. It will be modified and kept current with advances in technology and increased knowledge.

HOW IT WAS MADE - The inventory was initiated in 1957, as part of a national inventory authorized by the Secretary of Agriculture. It is based upon soil surveys of 160 acre samples drawn at random. The soil survey samples were expanded to represent actual conditions in the County. The County Committee used this information along with their knowledge of the County to develop estimates of expected changes by 1975.

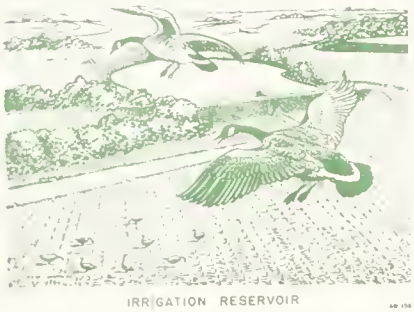
WHO DID IT - The inventory and this leaflet were prepared by the Powder River County Conservation Needs Committee. The committee consisted of representatives of the County Extension Service, Agricultural Stabilization and Conservation Service, Farmers Home Administration, U. S. Forest Service, Soil Conservation District, County Commissioners, County Assessor and the Soil Conservation Service who acted as chairman.



DRY CROPLAND — 143,075 Acres

57% or 80,987 acres are adequately treated, or treatment not feasible.
43% or 62,088 acres needs treatment.

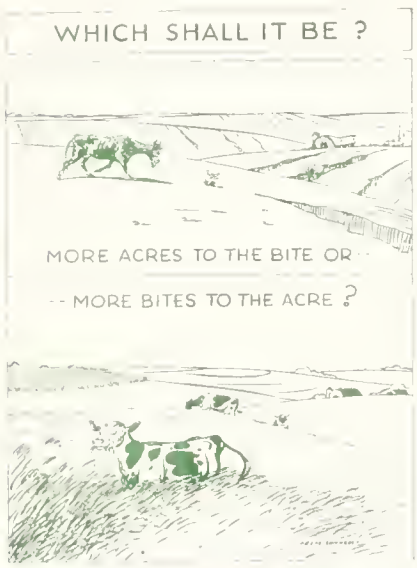
a. Erosion is dominant problem (Water and wind erosion could be treated with strip cropping, stubble mulch, grassed waterways, etc.)	45,653 Acres
b. Excess water dominant problem (open drain ditches)	4,500 Acres
c. Unfavorable soil conditions (Crop rotation, fertilizer, narrower strips, field shelterbelts, etc.)	92,922 Acres



IRRIGATED CROPLAND

24% or 4,814 acres of irrigated cropland are adequately treated.
76% or 15,068 acres of irrigated cropland needs treatment.

a. Erosion by water and wind, dominant problem.	16,812 Acres
b. Excess water dominant problem	40 Acres
c. Unfavorable soil is dominant problem	1,605 Acres
d. Climatic conditions dominant problem	63 Acres



GRASSLAND (Native Range, Tame Pasture, Irrigated Native) — 1,197,146 Acres

54% or 642,106 Acres are adequately treated.
46% or 555,040 needs treatment.

a. Needs reseeding	34,040 Acres
b. Improvement (Deferred grazing primarily)	132,600 Acres
c. Overgrazed (Proper stocking - better distribution).	388,400 Acres
d. Needs stockwater development	269,654 Acres
e. Protection of fire	500,000 Acres
f. Severe erosion	10,500 Acres
g. Rodent control	800 Acres
h. Encroachment of undesirable plants	12,000 Acres
i. Insects and disease	61,800 Acres
j. Excess water	0 Acres
k. Needs Water Conservation	39,000 Acres



WOODLAND — 67,038 Acres

a. Needs establishment (Planting)	0 Acres
b. Needs stand improvement	20,000 Acres
c. Protection from fire	33,519 Acres
d. Insect and disease control	46,927 Acres
e. Protection from animals including rodents.	1,500 Acres
f. Erosion control	0 Acres
g. Establishment of windbreaks (18 mi.)	200 Acres

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